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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/624,856

07/22/2003

Matthew Richard McAlonis

17938 (AT 20958-02091)

6541

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10/13/2004

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EXAMINER

VU, HIEN D

ART UNIT

PAPER NUMBER

2833

DATE MAILED: 10/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/624,856

Applicant(s)

MCALONIS ET AL.

Examiner

Hien D. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9,11-17 and 19 is/are pending in the application.
- 4a) Of the above claim(s) 8,10,18 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7,9,11,12,14-17 and 19 is/are rejected.
- 7) ☒ Claim(s) 3 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. Applicants election of species 1, figs. 1 and 6, claims 1-7, 9, 11-17 and 19 in the paper filed 6/14/04 is acknowledged.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the features "first and second contact elements ... common manner" in claim 1, lines 1-2 and claim 11, lines 4-5; the features "to be joined... circuit board" in claims 2 and 12, line 3 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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3. Claims 1-7, 9, 11-17 & 19 are objected to because in claims 1 & 11, it is unclear how the first and second contact elements could configure to be joined in an electrically common manner since such features are not shown in the drawings; claims 2 & 12, line 3, the feature "to be joined ... circuit board" is unclear since it is not shown in the drawings; claims 4 & 14, line 3, it is unclear what it meant by "interleaved order".

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 4-7, 9, 11-12, 14-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al in view of Suzuki.

Insofar as the claims can be understood, Huang and Suzuki are applied as follows: Huang, figs. 1-3 show a housing 10, a first and second contact elements 12 could be configured to electrically join via a conductive pad on a circuit board (not shown), the contact elements each having a contact beam to project toward one another in an overlapping pattern.

It would have been obvious to read the contact elements electrically joining via the conductive pad on the circuit board as the elements to be joined in electrically common manner.

As to claim 2, base portions 121 of contact elements 12 are formed separate from one another.

As to claim 4, Huang does not show the first second contact elements having first and second pairs of contact beams. Suzuki figs. 4-6 show first an second contact elements (20, 30) having first and second pairs of contact beams. It would have been obvious to modify the connector of Huang by forming the first and second contact elements to have first and second pair of contact beams, as taught by Suzuki, in order to provide more effective contact.

As to claim 5, the first and second contact elements with base portions spaced apart at proximate ends of the contact along a longitudinal axis as shown in fig. 1 of Huang.

As to claim 6, the first and second contact beams could deflectable into alignment in a common plane.

As to claim 7, the current along first and second paths of contact beams are aligned in substantially vertical planes.

As to claim 9, each contact element has a base portion 121 with a prong 126 and a solder paddle 122.

As to claims 11-12, 14-17 and 19, the rejections are similar as described above.

6. Seidler, Yeh, Ling et al, Hughes et al and Yamibe et al are cited for disclosure of electrical connectors having staggered contacts.

7. Claims 3 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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8. Any inquiry concerning this communication should be directed to Hien D. Vu at telephone number (571) 272-2016.

Vu/ds

09/10/04

A handwritten signature in black ink, appearing to read "Hien Vu", with a stylized, cursive script.

HIEN VU
PRIMARY EXAMINER